

**AMENDMENTS TO THE CLAIMS**

1-12 (Cancelled)

13. A method of ~~acquiring~~ generating a pattern constructed by more than 3 basic colors to acquire 3D color information, wherein a common light source and a pattern light source are used to respectively acquire a projected image and a pattern image to obtain a 3D model of an object, wherein the pattern light source provides ~~a~~ the pattern constructed by more than 3 basic colors, ~~and generating the pattern comprising:~~

~~providing~~ (a) selecting a primary encoding unit including a predetermined number of colors;

~~(b) adding one~~ a first of the more than 3 basic colors behind the primary encoding unit to form a first new encoding unit;

~~(c) confirming whether that an arrangement of the~~ first new encoding unit follows a predetermined color sequence of adjacent colors;

~~(d) determining whether or not the first new encoding unit corresponds to any previous encoding unit;~~

(e) one of

(e1) if the first new encoding unit corresponds to any previous encoding unit, adding a second of the more than 3 basic colors behind the primary encoding unit to form a second new encoding unit and repeating steps (c) and (d) until step (d) identifies a final new encoding unit that does not correspond to any previous encoding unit, and

(e2) if the first new encoding unit does not correspond to any previous encoding unit, identifying the first new encoding unit as the final new encoding unit;

(f) determining whether or not the final new encoding unit can be associated with a pre-existing cluster in accordance with a predetermined association parameter;

(g) one of

(g1) forming a new cluster if the final new encoding unit cannot be associated with a pre-existing cluster,

(g2) assigning the final new encoding unit to the pre-existing cluster if the final new encoding unit can be associated with a pre-existing cluster, and if the final new encoding unit is spaced from pre-existing encoding units of the pre-existing cluster by a predetermined amount, and

(g3) if the final new encoding unit can be associated with a pre-existing cluster, and if the final new encoding unit is not spaced from pre-existing encoding units of the pre-existing cluster by a predetermined amount, repeating steps (a) through (f) with another of the more than 3 basic colors; and

~~putting the new encoding unit in a corresponding cluster according to an evaluation result; and~~

(h) repeating the above steps (a) through (g) to correctly locate all the encoding units until all of the more than 3 basic colors are processed.

14 – 15. (Cancelled)

16. The method of claim 13, wherein the predetermined number of colors ~~pattern is~~  
~~constructed by~~ includes 6 colors.